



photo credit: Michael Foley, flickr

WASH Knowledge Update

May 2018

Volume 1, Issue 1

INAUGURAL ISSUE

FOR LIMITED CIRCULATION

Welcome Note



Photo Credit: WaterAid / Prashanth Vishwanathan

We welcome you to the first issue of WASH Knowledge Update. As so many important happenings have been taking place in the water and sanitation sector in India, several members of WASH Forum met and expressed the need to come up with an update on water and sanitation.

Here, friends, is the first attempt in this direction. We sincerely hope that this update meets the expectations of all of you and in the journey forward we look to receiving more active participation and contributions of all the WASH Forum members.

With best wishes,
Bharat Dogra



Photo Credit: Meena Kadri, flickr

IN THIS ISSUE

Understanding Capacity Building in WASH: Getting the Basics Right.
-Depinder Kapur

Budget for Water and Sanitation - Causes for Concern. - Bharat Dogra

Sanitation : Media Review.

Mangal Turbine Is Extremely Useful for Lifting Water without using Diesel or Electricity. - BD

Delhi's e-waste Crisis.- Amita Bhaduri

Field Report- Water and Sanitation Reality in Delhi's Resettlement Colonies.
- Bharat Dogra and Reena Mehta

Water : Media Review.

Understanding Capacity Building in WASH: Getting the Basics Right

Author: Depinder Kapur

Most programs of WASH have capacity building as an integral component of work. It is not wrong to assume that regular capacity building is required to improve skills and performance of the teams to achieve improved WASH outcomes. However, what is not considered very often is what should be the focus of capacity building and what can be a meaningful strategy.

This short paper attempts to place the lessons learnt in implementing an urban WASH capacity building programme.

Importance of Perspective

Capacity building as defined in terms of skills and competencies is a narrow definition. A good trainer needs to have a larger perspective of the context and challenges within which his/her focus on capacity building is situated.



So, if you are dealing with WASH capacity building and there too on sanitation only, you need to place it in the perspective of drinking water access, crisis of availability, inequity (social, rural-urban, intra urban, agriculture-industry, etc.) and then water for sanitation. If there is an appreciation of water crisis, sanitation capacity building can be situated in this reality and not be reduced to an agnostic technology and skills trainings.



Similarly when you are dealing with behaviour change for WASH, then you have to place it in context to all the approaches followed ranging from market based to movements based approaches of mobilizing people to demand rights to consumer demand raising. This will ensure that you are not adopting a very short term functional capacity building programme aimed at changing people's immediate behaviour but will look at deeper self-perception barriers they face in building and using toilets and hand washing at critical times.

Perspective building needs to be situated in the larger context of livelihoods and needs of people. When people were living in kuchha houses in the 1980s, we had a sanitation programme that gave Rs. 2000 toilet subsidy for pucca toilets. In early 2000 when people had started building pucca houses we gave them Rs 500 subsidy for toilet construction.

Understanding the larger institutional and legal systems, governance structures, their shortcomings and limitations, is important for a perspective on capacity building. If institutions that administer and regulate WASH sector are not performing or are under staffed and corrupt, then your focus, key messages and options for improvement that you suggest in capacity building – need to take factors these in carefully. So that you don't end up seeking more regulation that worsens the problems. Yet at the same time, you retain a focus on the failure of the institutions and make them accountable to perform, as a critical part of your training and capacity building perspective. Not becoming advocates for short term solutions.

Functional skills

Functional skills are important but need to be integrated with perspective building. With a plethora of tools, approaches, technologies, compendiums, case studies.... there is an excess of what is available and not enough clarity on what is useful and how it can be used for specific WASH capacity building.

Different aspects of decentralized sanitation capacity building: technology, financing, planning, behaviour change, gender, etc. are covered under the larger functional classification of a Sanitation Service Value Chain. What has to be prioritized and communicated under each thematic aspect, needs to be carefully identified and creatively built into the content of capacity building modules. Otherwise it can become an overload of information that does not have a linkage with the larger perspective of WASH sector challenges (water scarcity, staff and financial resources with small Urban Local Bodies for O&M).

Scheduled desludging of septic tanks is a priority from the perspective of requirement of emptying of septic tanks to prevent overflow, or does it make sense in terms of making the whole Operations and Maintenance of Faecal Sludge Treatment Plants viable – needs to be understood for capacity building.

Urbanisation Trend in India

There is a three-tier definition of “urban” in India: at least 5,000 inhabitants, density of 400 people per sq. km or more, and at least 75% of male working population engaged in non-farm activities. However, it is up to the states to declare rural settlements as statutory towns or census towns. Since this has implications in terms of town

Within South Asia too almost all countries, with the exception of Nepal, show a relatively high and steadily increasing urban population. Maldives has the highest urban population of 44% followed by Pakistan (38%), Bhutan (37%), Bangladesh (34%), India (32%), Afghanistan (26%) and Nepal and Sri Lanka both (18%) (United Nations, Department of Economic and Social Affairs, Population Division, 2015).

While urban planners may debate whether urbanization pace is faster in smaller towns vs. the large metros or its pace in the last few decades, the fact remains that urbanization is a recognizable trend in South Asia and poses a grave challenge in terms of addressing the growing drinking water requirement and the safe treatment and disposal of solid waste and human faeces.

Urbanisation has several social, economic and environmental implementations. What is most obvious is the lack of sufficient awareness and understanding of the implications of unplanned urbanisation and how resources can be spent to meet the needs and aspirations of those who are at the margins of urban growth. Not addressing urban sanitation challenges, has significant health and livelihood implications.

Urban Sanitation Challenge in India

After a slow start in 2014, India seems to be making good progress in both rural and urban sanitation.

30% of India's 4,386 cities and a quarter of the 685 districts have been verified as being free of open defecation by the urban and rural arms of the Swachh Bharat Abhiyan (Clean India Mission), respectively. Over 4 million toilets have been built across cities, and close to 60 million toilets across the rural landscape since the mission's launch on 2 October 2014. Administrators of another 122 districts and 509 cities are awaiting verification of their status, and others find themselves pressed for time. Many states have set themselves steeper individual targets, challenging their already overworked front-line bureaucracies.

There is significant progress in toilet construction, making states, districts and cities becoming open defecation free. Toilets are being built but at the same time the effective treatment of faecal waste generated remains to be addressed. This is a challenge more evident in our towns and cities.

Urbanization trends in India

- Urban Population - 377 million (31.16 %)
- Total number of urban centers: 7935
- Statutory Towns (4041 nos.) are administered by Urban Local Bodies
- Census towns have trebled over a decade. Increase in Statutory Towns has been much slower.

Type of Urban Units	2011 Census	2001 Census
1. Towns:	7,935	5,161
(a) Statutory Towns	4,041	3,799
(b) Census Towns	3,894	1,362
2. Urban Agglomerations	475	384

Census Towns are administered via rural administration – provision of urban services not mandatory in these areas

governance, taxation and public services provision, provision, there is a tendency not to declare more settlements as towns. If the strict definition of population more than 5000 is considered, as much of 47% Indian population could be considered residing in urban areas

Landscape of Urban Sanitation of India (Census 2011)

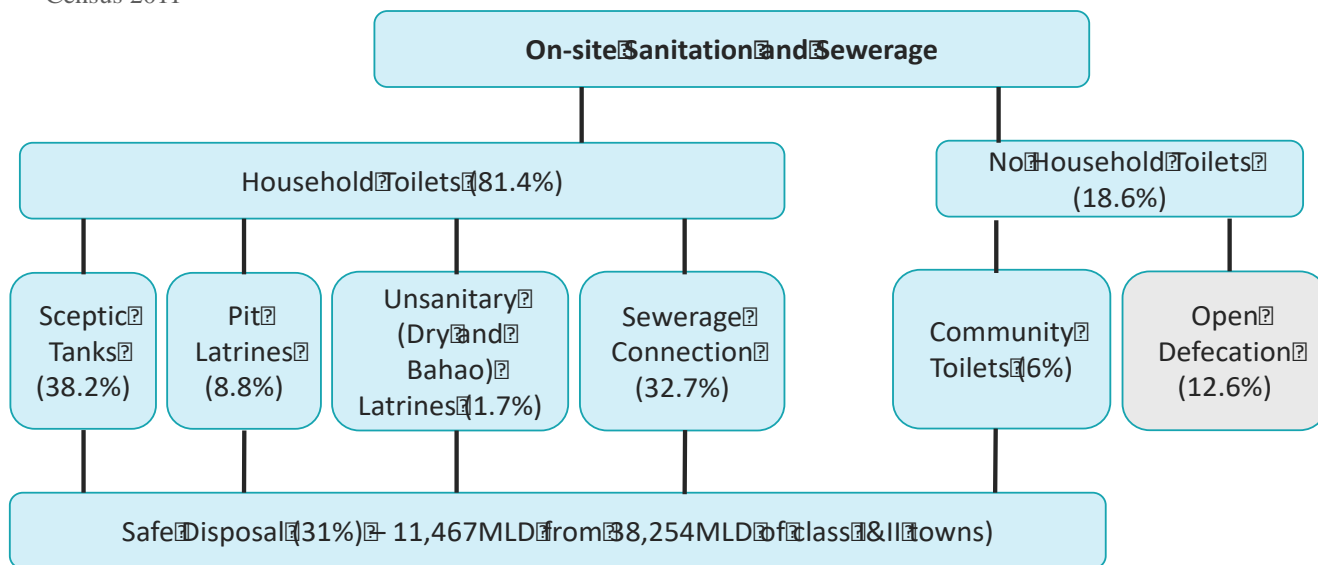
The urban sanitation challenge is not just of a large 49% of urban population relying on non seweraged systems; it is also inadequate treatment and disposal from the seweraged centralised systems.

Corporations, 1443 Town Municipalities, and 2091 Nagar Panchayats.

A small town of typically less than 100,000 population, has a very small staff strength, often with contractual employment and short tenures. The major focus of the town administrator is on addressing drains, solid waste

Urban Sanitation in India

Census 2011



- 75% of fresh water resource which is being used for drinking purpose is contaminated.
 - Sewage contributes 60% of the total pollution load.
 - 93% of total domestic wastewater is generated in Class-I cities.
- Ref.: CPCB Report, 2009

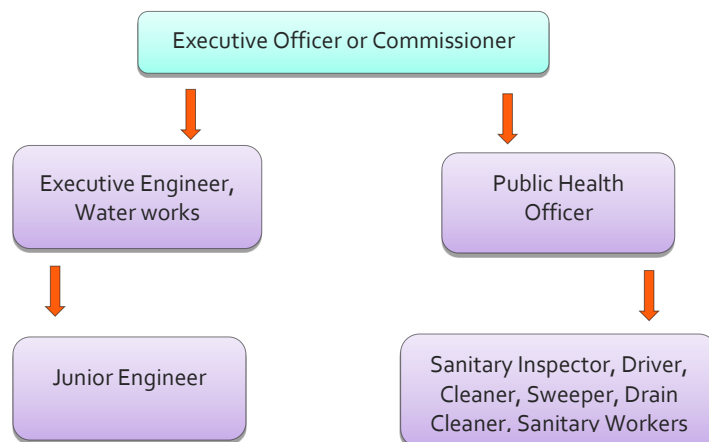
A study of 1500 towns sanitation systems by CEPT University recently showed that very few towns(5) of India are fully connected by sewerage systems and most towns have a mix of onsite septic tank based sanitation as well as networked off site sewerage systems.

Context of Urban Sanitation Capacity Building for Small Towns

In India, Class 1 cities are those cities with more than 100,000 population. Smaller cities range from Class 2 cities to Class 6 cities. As per the (2011) Census, India had

only 4041 urban settlements out of which there were 46, million plus cities, 5 cities with more than 5 million population and 2 out of these 5 cities have more than 10 million population. As of 2011 India had 107 City Municipal

Small Towns Sanitation Team Organogram



and street cleanliness. There is often no infrastructure to treat septage and liquid waste, and at best one or two de

sludging tankers with the Municipality that may not be in working order.

Urban Sanitation Capacity Building Framework

The experience during the last 2 years of the Gates Foundation supported Sanitation Capacity Building Platform (SCBP) is derived from engaging with the states and ULBs capacity building for decentralised septage management, by bringing together credible expert institutions to provide capacity building support.

The SCBP functions as a platform of credible national expert agencies for Faecal Sludge and Septage Management (FSSM) capacity building support to states and ULBs.

The platform is an organic evolving forum consisting of the following: CEPT University, CDD Society & BORDA, All India Institute of Local Self Government (AIILSG), Administrative Staff College of India(ASCI), Ecosan Services Foundation(ESF), WaterAid, iDECK, centre for Policy Research(CPR), Urban Management Centre(UMC), CSTEP and WASH institute. The platform supports FSSM promotion at a multi stakeholder, state and town level. SCBP is part of the National Faecal Sludge and Septage Management Alliance (NFSSMA) at the national level.

The strength of the Platform is its ability to bring together partners to contribute towards development of State Sanitation Policy, Training of Trainers and Training Content Development, Technical and Social Assessments, Training Programme delivery, Research and Documentation.

The Platform has supported FSSM capacity building intensively in three states of Uttar Pradesh, Bihar and Rajasthan. And national level FSSM capacity building through an engagement with Nodal AMRUT agencies to reach out to more towns and states (MP, Karnataka, West Bengal, Jharkhand). The platform has the potential to reach out to many more states and stakeholders (Urban Local Bodies (ULB) Officials, Private sector, Elected representatives, Academia, NGOs and Media) through a mix of awareness, advocacy, research and trainings support.

Challenges faced by SCBP

- ❖ Starting with activities that should logically be done later (DPRs).
- ❖ Constraints of nodal training institutes (their existing states and training calendars, lack of staff and resources with them and the centralized sanitation discourse that they have to handle)

- ❖ Dealing with different institutional set ups in different states. Poorly resourced and staffed small town ULBs, the SBM Directorates at state level. Coordination with multiple para state agencies at state level and the ULBs.
- ❖ ODF target pressure at state level leading to lower priority for FSSM.
- ❖ Securing interest and engagement of appropriate ULB staff for Trainings.

As an organic hand on platform coalition, SCBP does have a blueprint trainings mandate. The Platform attempts to meet immediate requirements/goals of States/ULBs on one hand, and addressing longer term learning and capacity building goals. For example, meeting the immediate requests of some Detailed Project Reports(DPRs) for setting of treatment plants for faecal sludge, as a start-up activity may not be the best way to initiate capacity building, but secures valuable buy in for capacity building.

Conclusion

There is a big gap in capacity building for FSSM in its different dimensions that we are grappling with today, from awareness and advocacy to technology, social, institutional, form and content of delivery. Adoption of National FSSM Policy 2017 has been a winning point. However, the challenge is its implementation. It is important that marginalized communities do not get left out of the decentralized sanitation initiative under FSSM, as happened with sewered sanitation.

In summary, strengthening institutional capacity building and advocacy for FSSM at all levels needs to be stepped up. The initial work on laying the base of national and state level FSSM policy framework, introduction of FSTPs as a technology option through extensive advocacy events, trainings of ULB staff at scale, Training Modules developed and disseminated, the first set of FSTPs coming up: the platform needs longer term support to sustain and support.

For more information on the Sanitation Capacity Building Platform work and Knowledge Resources, kindly visit our site scbp.niua.org

Depinder Kapur is a development professional with experience of working on livelihoods, water and sanitation issues.

Budget for Water and Sanitation Causes for Concern

Author: Bharat Dogra

India is in the middle of huge sanitation initiatives. For their success these initiatives also need better water supply. In the middle of worrying drinking water shortages in many areas more efforts for ensuring the basic need of clean drinking water are needed. Hence a significant increase in funds for water and sanitation sector was clearly and widely expected at the time of the presentation of the union budget.

Therefore, it was a big surprise and a disappointment to know that the budget for the Ministry of Water and Sanitation had actually declined compared to the Revised Estimate (RE) for the previous year. While the RE for 2017-18 was Rs. 24011 crore the Budget Estimate (BE) for this financial year 2018-19 is only Rs. 22357 crore.

The allocation for this ministry consists mainly of National Rural Drinking Water Program and Swachh Bharat Mission (Rural). In the case of the National Drinking Water Program the RE for the previous year was Rs. 7050 crore which is reduced to BE of Rs. 7000 crore this year. In the case of the Swachh Bharat Mission the RE for the previous year was Rs. 16948 crore while the BE for this year has been reduced to Rs. 15343 crore.

The Swachh Bharat Mission (Urban) is under the Ministry of Urban Development. Its budget has increased only marginally from RE of Rs. 2300 crore in the previous year to BE of Rs. 2500 crore this year. If we add the Swachh Bharat Mission Urban and Rural then the total BE this year for this high priority mission is Rs. 17843 crore which is less than the RE of Rs. 19248 crore for the previous year.

In the case of the Atal Mission for Rejuvenation for Urban Transformation (AMRUT) Program for mainly improving urban water and sanitation, the allocation has increased from RE of Rs. 4998 crore in the previous year to BE of Rs. 6000 crore this year.

On the whole the stagnation or even some decline in these allocations is a cause for concern. The decline in real terms



is of course higher than in nominal terms after the inflationary impact has been removed.

Another cause for concern

was pointed out by the Comptroller General—While the Rs. 16400 crore was collected under the Swachh Bharat cess during the last two years, nearly a quarter of the collection or over Rs. 4,000 crore remained outside the non-lapsable dedicated fund called Rashtriya Swachh Kosh.

If we go back a few years then we see that while the budget for rural sanitation increased significantly for some recent years, the longer-term stagnation or even decline in the case of rural drinking water allocations remains an area of very serious concern. Under the National Rural Drinking Water Program Rs. 10490 crore were spent in 2012-13. This decreased to Rs. 9691 crore next year and then again to Rs. 9242 crore in 2014-15. The next year there was a very drastic decline to Rs. 4369 crore. This was followed by only a very partial recovery to Rs. 6000 crore in the RE of 2016-17 and to Rs. 7050 crore in the RE of 2017-18. In the BE of this year again there is a slight decline to Rs. 7000 crore, as pointed out earlier. On the whole, the BE of this year is far less than the actual expenditure in 2012-13 which was Rs. 10490 crore. While this may partially reflect the higher allocation to states under the 14th Finance Commission Recommendations, the decline in Union Budget allocations for such a high priority as clean drinking water for rural areas is nevertheless a matter for very serious concern. Remedial action should be taken very soon, starting with the RE for this year.

Bharat Dogra is a freelance journalist who has been involved with various social movements and initiatives.

Sanitation: Media Review

Labour and Manual Scavenging

Panel orders closure of insanitary toilets in Shraavanabelagola

News courtesy: *The Hindu*, 31 January, 2018

The Chairman of the Karnataka State Commission for SafaiKarmacharis, M.R. Venkatesh, who visited Tyagi Nagar — a temporary township in Shraavanabelagola — on



Tuesday, ordered the closure of insanitary toilets and asked contractors who have hired workers for cleaning the

township to pay them a minimum wage of ₹14,500 a month.

[Read more](#)

Waste-pickers best ally in war against waste

News courtesy: *Hindustan Times*, 12 March, 2018

According to Chintan, an environment researcher nonprofit, waste-pickers recycle almost 15-20% of Delhi's garbage, saving the municipalities at least ₹1 crore a day. But all they earn is a couple of thousand rupees each a month. There is no compensation for braving the stench, the feral dogs, and a battery of deadly germs without even the basic protection, prompting the NHRC to label their living conditions as a violation of human rights.

Although much belatedly, the government is now attempting to make amends. Cleared by the Centre in April 2016, and to be adopted by all states, the Management of Solid Waste (MSW) Rules have specific clauses on the integration of waste-pickers into the formal system of garbage collection.

These rules ask generators to segregate garbage at source and hand over their daily discards in separate

stacks to the waste-pickers. The local bodies have to register waste-pickers and waste-dealers, give them identity cards, and provide better working conditions by setting aside space for material recovery and storage facilities. They must also be paid reasonable honorarium generated from a stipulated user charge collected from households and commercial establishments for the service.

[Read more](#)

In times of Swachh Bharat, existence of manual scavengers paints a dirty picture

News courtesy: *Hindustan Times*, 27 March, 2018

For years, the centre has alleged that states have found ways to deny the existence of manual scavengers, even though with every mishap and death, the best worst-kept secret is exposed. Penal provisions, strictures to follow the process of identifying and compensating those involved in the high-risk and dehumanizing job notwithstanding; there is still no validated list of how many exist and how many join the profession compelled by poverty and lack of opportunity.

As on January, the total number of identified manual scavengers is 13,639, of which 12, 771 have been offered the one-time cash compensation, according to government data.

"It is for this reason, we have decided to conduct a fresh survey in particular districts that will count those who clean night soil and pit latrines. In the next stage, we will count people involved in cleaning septic tanks, sewers, railways tracks and platforms," said an official of the ministry of social justice and empowerment that has the mandate to implement policies for rehabilitation of these workers.

The fresh survey to be conducted with assistance from the government think tank NITI Aayog, is expected to clear the haze over the exact numbers. It will register those who continue to be in the profession after the practice was outlawed in 2013.

[Read more](#)

Open Defecation Free

छात्रा भूख हड़ताल पर बैठी तो बने 550 शौचालय

(Translated) Hunger strike by a girl student led to the construction of 550 toilets

News courtesy: *Rashtriya Sahara*, 26 March, 2018

A girl student's hunger strike led to construction of 550 toilets. *Rashtriya Sahara* reported on March 26 that hunger strike by a 14-year old student Nisha Kumari, resident of Udhampur district in Jammu & Kashmir resulted in the construction of 550 toilets.

93% rural households with access to toilets using them: Survey

News courtesy: *The Times of India*, 28 March, 2018

Over 93 per cent households in villages who have access to toilets are using them and about 77% homes in rural areas have got toilets, the annual rural sanitation survey has found.

The survey, NARSS 2017-18, conducted by an independent verification agency under the World Bank support project to the Swachh Bharat Mission Gramin (SBM-G), has also re-confirmed the Open Defecation Free (ODF) status of about 96% of villages which were previously declared and verified as ODF by various districts and states.

The survey was conducted between mid-November 2017 and mid-March 2018 and covered 92,040 households in 6,136 villages across India.

[Read more](#)

आधी रकम से शौचालय बना पेश की मिसाल

(Translated) An example has been set by constructing toilets in half the budget

News courtesy: *Rashtriya Sahara*, 30 March, 2018

Narayanpur block of Mirzapur district of Uttar Pradesh has set an inspiring example of constructing a toilet on low budgets and by making self contributions.

Working toilets will guarantee a Swachh Bharat

News courtesy: *Hindustan Times*, 17 March, 2018

In Gopalpura village of Chainpura cluster in Meghnagar block of Jhabua district in Madhya Pradesh, 100 of the 330 families have toilets, but almost none uses them.

The problem: the toilets have no water source, no water storage tank, and no drains or soak pits for the sewerage generated.



[Read more](#)

Open Defecation in Rural India, 2015–16; Levels and Trends in NFHS-4

News courtesy: *Economic and Political Weekly*, 3 March, 2018

This article investigates patterns of rural open defecation using the newly released National Family Health Survey-4 (NFHS-4), a large-scale nationally representative survey collected between January 2015 and November 2016.

They are the most credible nationally-representative estimates to be released in nearly a decade. These new numbers encourage readers and policymakers to be cautious when interpreting suggestions that open-defecation in rural India has changed radically in the last few years. If the average decline in rural open defecation from December 2016 to October 2019 proves to be similar to what the NFHS-4 indicates it was from January 2015 through November 2016, then about half of all rural Indians will still be defecating in the open at the end of the SBM. Careful reflections and new approaches to encouraging latrine use are needed.

[Read more](#)

राष्ट्रीय राजमार्गों के किनारे डेढ़ लाख शौचालय बनेंगे

(Translated) 1.5 lakh public toilets will be constructed on the sides of National Highways

News Courtesy: *Hindustan*, 24 January, 2018

Central government has issued directions to build 1.5 lakh public toilets across petrol pumps, commercial complexes, rest areas etc. on the sides of National Highways.

Solid Waste

Ghazipur residents wake up every day to the stench of toxic fumes

News Courtesy: *The Hindu*, 31 March, 2018

"In the last decade, I have learned to live amid the flies and the unbearable stench. Whenever any guest visits us, they ask how we manage to live in this area. This is almost like an insult, but our hands are tied and we need to adapt ourselves to these insults as well," says Anita Chawla, a resident of Delhi Development Authority (DDA) colony in Ghazipur.

Residents of the DDA colony, which is situated right opposite the Ghazipur landfill site, claim they are now habituated to waking up to the toxic fumes that the sewage treatment plant spews out daily.

"The worst part is the black smoke that billows from the chimney of the treatment plant every day. It has become difficult to breathe and only two days ago I had a bleeding nose. Doctors are saying that it might be



because of the air pollution that we are subjected to. It's a huge problem for my family. My children are as young as three years old and it's taking a toll on their health," said 37-year-old Shobha, a resident.

Alternative landfill sites

On March 15, this year, the civic bodies had informed the tribunal that certain sites had been identified as alternative landfill sites.

The Central Pollution Control Board had further informed the green panel that some of the proposed sites had been found to be suitable after inspection.

Following a fire incident on March 18, at the site, the NGT further directed the civic bodies to "ensure that no such incident of fire reoccurs."

"Following directions from the National Green Tribunal, we have restricted the entry of trespassers in the dumping ground. As for the reduction in the height, there are proposals in place, that we are working on," said P.K. Khandelwal, Engineer-in-Chief of the East Delhi Municipal Corporation (EDMC).

However, senior DDA officials said that availability of land remains a big problem in Delhi.

"No doubt that it is a grave issue at the moment but where is the land to establish a new site? After the Ghazipur incident, when we tried to shift it to Rani Khera, residents there objected and protested. All areas will have some problem or the other. Measures to control the height should have been taken much earlier," said a senior DDA officer on condition of anonymity

[.Read more](#)

Garbage trouble in Kondli

News Courtesy: *DNA*, 30 March, 2018

An unbearable stench emanating from overflowing landfills is common in east Delhi's Kondli area, even as residents have raised an alarm with the municipal authorities regularly. Even a government school building in the locality is surrounded by a garbage dump causing an immense problem for students to concentrate on studies because of the foul smell that reaches their classrooms. "The garbage dumping site overflows all the time. It gives off such an unbearable smell that we cannot focus on anything else in the class," said a class IX student, who crosses the stretch every day. The garbage has also led to mosquito breeding threatening an outbreak of vector borne diseases. The edible items in this garbage piles further attract cattle from the neighbouring Gharoli village, creating more problems. Lots of cows are seen in the residential area. It is dangerous for small children playing on the streets. Sometimes, the cattle even block the entry to the houses.

Ghazipur landfill site height will soon match Outub Minar'

News Courtesy: *The Asian Age*, 28 March, 2018



Taking strong objections to non-implementation of solid waste management rules in the country, the Supreme Court on

Tuesday said "India will go down under the garbage one day".

The top court said that days are not far when garbage mounds at the Ghazipur landfill site in Delhi will match the height of iconic 73-metre high Outub Minar and red beacon light will have to be used to ward off aircraft. "We

keep on passing orders but solid waste management rules are not implemented. What is the use of passing the orders when no one is bothered to implement it. India will go down under the garbage one day," a bench of Justices M.B. Lokur and Deepak Gupta said.

It said, "Garbage mounds at the Ghazipur landfill site will one day touch the height of Qutub Minar and red beacon light will have to be used to ward off the aircraft".

The apex court also asked all the states and union territories to frame a policy for disposal of solid waste in three months. Senior advocate Colin Gonsalves, assisting the court as an amicus curiae, said the court should direct all local bodies in the country to implement the solid waste management rules in 3-4 months and if they failed to do so they can be held for contempt.

[Read more](#)

Solid waste: Supreme Court says 'sitting on time bomb of garbage'

News Courtesy: The Indian Express, 08 March, 2018

Pulling up authorities for not doing enough to manage solid waste, the Supreme Court Wednesday said that "we are sitting on a time bomb of garbage waiting to explode". "It is a clear indication that nobody bothers. So all the dump of India can remain here," a three-judge bench comprising Justice Madan B Lokur, Justice Kurian Joseph and Justice Deepak Gupta exclaimed after finding that none of the states and Union Territories (UTs), except Delhi, were represented in the court during the hearing.

Upset over this, the bench told Additional Solicitor General (ASG) A N S Nadkarni, representing the Centre, "What do we do, you (Centre) tell us. Is this the attitude of state governments about solid waste management? Nobody (lawyers) for the states and UTs, except for Delhi, are present."

[Read more](#)

Palwal villages free of polythene

News Courtesy: The Tribune, 20 February, 2018

The first round of the Super Village Challenge has reportedly made all 260 villages in Palwal district free of polythene. Union Minister of State for Social Justice and Empowerment Krishan Pal Gurjar recently handed over appreciation certificates to some panchayats for good work as part of the drive.

Mani Ram Sharma, Palwal DC, said the competition had yielded an overwhelming response and could go a long way in changing the development concept and its framework in villages. He claimed that all 260 villages had become free of polythene.

He said a majority of panchayats had adopted a policy to work on measures to root out everyday problems concerning garbage disposal and cleanliness. He said at least 30 panchayats had installed soak pits and vermin-compost pits to improve liquid waste management and manure facilities.

[Read more](#)

Upscale societies generate twice the waste than working-class ones, reveals EDMC's study

News Courtesy: Hindustan Times, 17 March, 2018

The residents of upscale neighbourhoods in east Delhi discard nearly double the trash than their counterparts in working-class colonies, according to a new survey conducted by the East Delhi Municipal Corporation (EDMC) in two neighbourhoods.



around 20% in the last 14 years.

The study also found that the average garbage generated by every person in east Delhi has increased by

The study, conducted last week in Rajvir Nagar (an unauthorised colony) and Pocket IV, Mayur Vihar-I (a planned neighbourhood), was commissioned on the directions of National Green Tribunal in order to collect latest garbage generation trends by people living under varied living standards.

The study also sought to determine an estimated composition of waste generated across Delhi.

[Read more](#)

NDMC to get 10 organic waste converters

News Courtesy: Hindustan Times, 11 March, 2018

The New Delhi Municipal Council (NDMC) is planning to procure organic waste converters with two metric tonne capacity to be placed at residential colonies in NDMC area, a senior council official said.

Four organic waste convertors, wherein garbage is segregated, and organic waste is converted into compost, is set to be commissioned by June this year and six more will be installed by March 2019 in other areas where municipal solid waste is already being segregated

[.Read more](#)

New bylaws say up to Rs 10,000 fine for not segregating waste

News Courtesy: The Times of India, 11 February, 2018

Soon Delhiites who do not consign wet and dry waste to separate bins will be fined Rs 200, while commercial establishments will be penalised Rs 10,000 for the same neglect.

People who dispose of sanitary napkins in regular dustbins will also be fined Rs 200, and street vendors who do not have waste containers for the trash they generate will be docked too. These penalties are part of Delhi government's recently notified Solid Waste Management Bye-Laws that the city's five urban local bodies — the three municipal corporations, New Delhi Municipal Council and Delhi Cantonment Board — are required to implement.

The city has been forced to take these steps because of the alarming growth of municipal waste at a time when the three sanitary landfills at Okhla, Bhalswa and Ghazipur are almost a decade beyond their capacity exhaustion. Collection of fines is likely to begin from the end of March.

[Read more](#)

Menstrual Hygiene

Madhya Pradesh hostel girls strip-searched over sanitary pad

News Courtesy: The Times of India, 27 March, 2018

More than 50 girls living in the hostel of Dr Hari Singh Gaur Central University in Sagar district of Madhya Pradesh were allegedly strip-searched by a warden to identify the student who threw a used sanitary pad on the hostel campus.

[Read more](#)

Battling custom of exiling menstruating women in Kullu

News Courtesy: Hindustan Times, 31 March, 2018



Life is no cakewalk for those who live in Himalayan villages, but it gets doubly hard for women on five days every

month, when they are confined to cow and goat sheds for the duration of their menstrual period.

Women in 94 of the district's 204 panchayats are forced to sleep in wood and stone sheds stained with animal dung and urine during such times because of a belief that menstrual bleeding renders them "impure". They are not allowed to enter their homes, temples and even toilets as people think that doing so would bring misfortune upon their families.

The times, however, are changing. On New Year's Day, Kullu deputy commissioner Yunus Khan launched the year-long 'Nari Garima' (dignity of woman) campaign to end the practice.

[Read more](#)

Obituary

The ecologically subsidised city

News Courtesy: The Hindu, 8 March, 2018

If ever there was someone who lived true to his name, it was Dhrubajyoti Ghosh. In Sanskrit, "Dhrubajyoti" refers to the light (jyoti) emitted by the pole star (dhruva tara). The ecologist, who passed away in February, was unwavering in his commitment to the cause he lived for and fearlessly defended: saving the ecologically critical East Kolkata Wetlands from the greed of developers for almost four decades, right up until his passing away.

What Ghosh discovered serendipitously, as a public sanitation engineer in the early 1980s, was that Kolkata's wastewater is introduced into and detained in shallow waterbodies (bheris in Bengali) which serve as oxidation ponds because of the presence of algae. Under the open tropical sun, the water undergoes change, getting comprehensively treated and cleaned as the bacteria disintegrate and the algae proliferate, serving as food for

fish. The treated water is used by villagers in the area to grow vegetables and paddy.

The beauty of what Ghosh discovered is that these villagers have been following such sane ecological practices for many decades without any help from the State, and well beyond the gaze of the media. It suggests remarkable ecological wisdom on the part of largely illiterate villagers, based on knowledge of local conditions and wetland hydrology.

Thanks to his dedicated work, the 125 sq km area of the wetlands were recognised internationally in 2002 as a 'Ramsar site', or a wetland of international significance, which made it incumbent by both the State and the Central governments to protect them from invasive encroachments.

[Read more](#)

The wetlands will weep today

News Courtesy: Hindustan Times, 17 February, 2018

Dhrubajyoti Ghosh is larger than life even in death. He is larger than the sum total of all the many awards that he



has received; the Ashoka fellowship and the United Nations' Global 500 laureate that he received fairly early in life and the CEM Luc Hoffmann Award that he received in 2016 amongst others.

Ahead of his times, Ghosh (71) was a "new generation" thinker, who realized the joys of learning from nature; understanding the myriad ways it supports humanity that is hell bent on destroying it; perchance teaching those who were privileged to listen to him about the omneity of nature with humankind, as he shared his understanding in his soft, unobtrusive way. Even political/ecological opponents he sought to handle with gentle fists.

"I have a battle strategy in my life. I avoid frontal assault or taking the name of a political person. That reduces my space for subsequent manoeuvres", he wrote to me. Few citizens have made a greater contribution to Kolkata in the past half a century and no one has been less celebrated by the city; no "shera baangali" award has come his way, a testimonial to the city elites; some of whom how sit in the heart of the wetlands, in high rises, possibly absorbing the lakes and the waters without a clue about the man who made this exceptional contribution to conserving the ecosystem.

He was just as sensitive to the plight of "The Trash Diggers" of Dhapa, just besides the wetlands, on whom he wrote his last book, almost an album on his working life spent in the Dhapa region and its denizens. Ghosh's work on the East Kolkata Wetlands began with identifying the uniqueness and opportunities of the ecosystem, where he serendipitously arrived in 1981 to seek the answer posed to him in the course of work with the state government: how could the wastewater be re-used for the city.

It was an instant engagement with a region that he named the East Kolkata Wetland, which he mapped as he calculated the economic value it was adding to the economy of the metropolis. It took a decade of engagement to convince the global arbiters of the importance of East Kolkata Wetland for it to be finally declared a Ramsar site in 2002

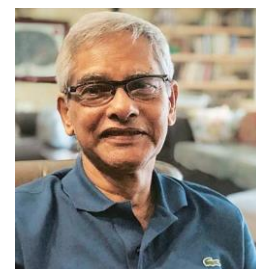
[.Read more](#)

Dhrubajyoti Ghosh (1947-2018): He found wealth in waste

News Courtesy: The Indian Express, 20 February, 2018

Sometime in the early 1980s, West Bengal's finance minister wanted to find out how to gainfully use Kolkata's sewage. Dhrubajyoti Ghosh, an engineer in the state's planning board, was assigned the task. He was to travel across the country and prepare a report within a year. He got his ticket to visit India's first sewage treatment plant at Dadar, Mumbai. Then came a moment of introspection.

"It occurred to me that they might ask me how Kolkata handles its sewage," Ghosh later recounted, "I didn't know". He searched high and low and found nothing. It seemed nobody knew what the city did with its sewage. So Ghosh did what officers aren't encouraged to do in government policy: He went for a walk. He ambled along the 28-km channel that carried the city's sewage eastwards, along the slope, to where the salt marshes once stood. Here, he saw shallow ponds that turned the city's sewage into algae. Then, the algae-rich water was let into nurseries, to be eaten by fish, that was then sold in the city. A marvel of recycling, of turning waste into food.



Shortly after, Ghosh wrote an account of what he'd seen and sent it to Richard Meier, a famous American ecologist. Meier was delighted; he wrote back to tell Ghosh that if he invested five years in the wetlands of east Kolkata, he'll

make history. Ghosh replied he was ready to invest 10. He ended up dedicating most of his working life to the wetlands, right up to his death at the age of 71 in a Kolkata hospital last Friday, February 16. That the East Kolkata Wetlands (EKW) exist today, spread over thousands of acres, owes to Ghosh's untiring efforts.

The fisherfolk here have grown fish in Kolkata's sewage for the past 80 years, at least. Their craft has been fine-tuned over generations. Both the scale and nature of the operation has no parallel in the world. The wetlands, often called the city's kidneys, treat its sewage and garbage for free, provide employment to thousands, and generate cheap food. Not to mention preventing floods, absorbing Kolkata's runoff during the monsoon (are you listening Chennai, Mumbai, Bengaluru?).

[Read more](#)

Sewage

Wealth from Waste

News Courtesy: *The Tribune*, 11 March, 2018



The rural Swachh Bharat Mission, after all, can work if there's willingness. Here is how Kurak Jagir village and 14 others in Karnal are changing their

landscape. Not long ago these villages overflowed with filthy, stinking water; and waterborne diseases were common. Today, the village johad (ponds of untreated, accumulated water) have given way to parks, open gyms and other recreational facilities. "Our village (Kurak Jagir) has become a picnic spot," exclaims Sudesh Kumar, sarpanch.

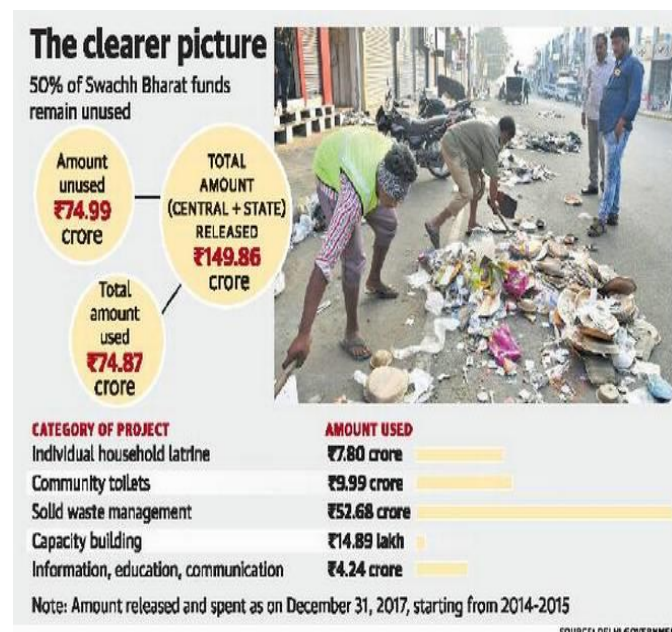
All this is thanks to a five-pond system: the 'johad' water has now become a source of recharging groundwater, being used in agriculture and fisheries.

[Read more](#)

Governance

50% of Swachh Bharat funds remains unused

News Courtesy: *The Hindu*, 9 February, 2018



Half of the funds ever released for sanitation projects under the Centre's Swachh Bharat Mission remained unused by Delhi's civic bodies and government agencies as of the end of 2017, a Delhi government report showed.

At a time the Delhi government is in the process of finalising its budget for 2018-2019, a report about the amount released and utilised for Swachh Bharat Mission compiled by the Urban Development Department shows that a total of ₹149.86 crore was released as on December 31, 2017. Of that, the civic bodies and the government agencies were able to spend ₹74.87 crore, with ₹74.99 crore remaining unused as on December 31, 2017.

[Read more](#)

Apps of three corporations find no takers

News Courtesy: *The Times of India*, 14 February, 2018

The mobile applications launched by the three municipal corporations on January 29 have virtually failed to accomplish the task for which they were developed. An official report shows that in the 15 days since the apps were launched only 182 people from south Delhi, 108 from north and 83 people from east have used it to lodge complaints about sanitation.

Moreover, most of these complaints have not been addressed. "It is because many sanitation inspectors

assigned the job are unable to comprehend and handle the system properly," said a source.

[Read more](#)

Cash-strapped civic bodies yet to use swachh funds

News Courtesy: *The Times of India*, 14 February, 2018

A major part of Rs 87-crore Swachh Bharat funds given to north and east corporations remain unspent even though these two corporations are cash-strapped and struggle to generate funds for even the basic expenses.

According to a Delhi government report, north corporation had utilised only 22% of the Rs 46 crore as on December 31, 2017, while the east corporation spent 53% of its share of Rs 41 crore. The funds had come from both the Centre and the Delhi government.

[Read more](#)

Swachh survey for over 4,000 cities

News Courtesy: *The Times of India*, 1 January, 2018

The government will kick off the largest-ever exercise to rank cities on cleanliness parameters on Thursday, covering more than 40 crore people from 4,041 cities, PM Narendra Modi announced on Sunday.

"Cleanliness Survey 2018, the largest in the world, will be conducted from January 4 to March 10, 2018 to evaluate achievements in cleanliness level of our urban areas. This survey will cover a population of more than 40 crore in more than four thousand cities," the PM said in his monthly radio address 'Mann ki Baat'. In 2017, 434 cities were ranked.

[Read more](#)

Miscellaneous

Overflowing toilets, cracked walls, tilted buildings: Aya Nagar is a disaster waiting to happen

News Courtesy: *Hindustan Times*, 15 January, 2018

Rajni Kushwaha is forced to relieve herself in the bushes even if it is in the dead of the night. It is not that her family doesn't have a toilet in their single-storey house at Aya Nagar. The toilet, she says, has become unusable due to sewage flowing from it. "We can't use the toilet in our home because the commode is overflowing with drainage water from the entire neighbourhood," 36-year-old Kushwaha said.



Over a hundred families in Aya Nagar — an unauthorised colony in south Delhi — face similar conditions in their homes. The residents blame

the state irrigation and flood control department, which had laid down drain pipes in the neighbourhood, the outlets of which opened in a water body. Over the past two years, the water body has filled up with sewage water which now has started backflowing and entering the houses of Aya Nagar and threatening the lives of local residents.

[Read more](#)

Mangal Turbine is Extremely Useful for Lifting Water Without using Diesel or Electricity

It is said all the time that grassroots innovators and barefoot scientists should be encouraged, but despite this, when someone actually does great work the system may fail to provide proper encouragement to him. At least this is the story of Mangal Singh, farmer scientist from Bundelkhand. His invention Mangal Turbine has been praised by very senior officials and technocrats, yet both he and his invention have suffered from neglect.

Mangal Turbine was first demonstrated in 1987. Mangal Singh was 40 at that time. Later it was patented as "Mangal Water Wheel Turbine Machine" (Patent No. 177190 dated 13-11-1997) as per Government of India gazette Notification dated 30th November, 1998.

This technology is described by Mangal Singh in the following words, - "The water wheel turbine machine consists of a water wheel which is firmly mounted on a steel shaft and supports on two bearing blocks fixed on foundation supports. The shaft is coupled with a suitable gearbox through universal couplings for stepping up speed of rotation. Output shaft of the gear box is coupled on one end with a centrifugal pump for lifting water and the other end is mounted with a suitable pulley for deriving power for operating any machine. Design of the water wheel turbine is simple. It is available in different size to meet the varying requirements. Operation of water Wheel Turbine Pump-cum-P.T.O. Machine is very easy as anyone can operate the machine by opening the wooden or steel gate valve, the machine is stopped by stopping the flow of water through the gate."

At least two former Secretaries of the Rural Development Ministry (B.K. Sinha and S.R. Sankaran) were known to be admirers of Mangal Singh's efforts. B.K. Sinha has spoken widely about the great usefulness of Mangal Turbine.

B.K. Saha, former Chief Secretary, Govt. of Madhya Pradesh, has written about this device, "I made a detailed analysis of the economic viability of the 'Wheel' and its comparative advantage vis-a-vis alternative methods of pumping water from streams and small rivers for irrigation. The system is extremely cost effective even

after taking into consideration the cost of the Stop Dam. Where the Stop Dam is already available the system is even more cost effective. Installation of this device is strongly recommended wherever there is flowing water in small streams by constructing a stop dam and installing one or two water wheels as designed and developed by Shri Mangal Singh. It saves on energy like electricity or diesel and is ecologically completely benign."



Similarly Dr. T.P. Ojha former Deputy Director General (Engineering) of the Indian Council of Agricultural Research wrote that "Mangal Singh's device offers great promise and possibility of lifting river water for irrigation, fisheries, forestry and drinking purposes. The water head created by putting a check dam across the river or perennial water course generates enough force to rotate the water wheels to operate one or two centrifugal pumps in series.

A report titled 'Problems and Potential of Bundelkhand with Special Reference to Water Resource Base' was prepared in 1998 by the Centre for Rural Development and Technology (CRDT) IIT Delhi and Vigyan Shikshan Kendra (VSK). This report examined MT carefully and recommended it for its great utility. This report said, "Most significant aspect is that the entire system designed by Mangal Singh is easily fabricated in the village itself, using available material and local workmanship. Besides, it requires minimal maintenance compared to other types, expertise for maintenance is available in the village itself.

The Limca book of Records (2013) has written, "Mangal Singh of VPO Bhailoni Lodh, Bar, Dist. Lalitpur, U.P., patented a low cost, efficient turbine that needs no fuel to operate it. Called Mangal Singh Water Wheel Turbine Pump-cum-PTP it can harness the energy of flowing water to lift water for irrigation. The turbine operates in water of one metre height that can be achieved by creating low cost check dams. His innovation could help save millions of litres of diesel per year or equivalent electricity."

Civil Society, a leading and respected journal on development issues, has honoured Mangal Singh with its Hall of Fame Award. The Award was presented to Mangal Singh by eminent social activist Aruna Roy.

Apart from making a very useful invention at a relatively young age Mangal Singh has since then distinguished

himself by his tireless work and great commitment for spreading this work, making improvements in it and trying to experiment at various sites to improve the location specific effectiveness of his invention. This work he has continued in very adverse conditions and with great financial constraints for nearly 31 years till now (1987-2018).

Yet the sad fact remains that the great potential of Mangal Turbine has not been realised so far. It is a very long and sad story. Mangal Singh is a very sad man today in poor health. It is for all us to try to make full use of his talents and to make the best possible use of his invention before it is too late. –**B.D.**

Mangal Singh can be reached at:
mangalturbine.1@rediffmail.com

Delhi's e-Waste Crises

Author: Amita Bhaduri

Delhi has India's biggest electronic and electric waste (e-waste) recycling market where around 40 percent of the e-waste ends up. Seelampur in north east Delhi is one such e-waste junkyard. A part of the Shahdara basin, Seelampur lies below the high-flood level of the river Yamuna. Being a low-lying area, it floods every year. The raw sewage from the Seelampur drain, full of acid wash from the e-waste dismantling units, flows into the Yamuna. E-waste gets dumped into the drain where corrosive chemicals like nickel, cadmium, mercury, and lead leach into the soil and the water table below. This drain, in addition, takes away the leachate from the unregulated and mismanaged dumps here, polluting the Yamuna.

A quarter of India's "three million tonnes of e-waste generated every year is dumped in Seelampur", as per Toxics Link, a Delhi-based non-profit working on research and policy advocacy on e-waste. Small children can be seen rummaging through electronic waste that has made its way in the maze of lanes at Seelampur from all over north India. The children segregate end-of-life electrical and electronic products, prise them apart, put them through acid wash after de-soldering and also burn circuit boards in the hope of extracting precious metals.

Keyboards and other components made of plastic are dismantled by chemical stripping using nitric and hydrochloric acid. Copper wires used in e-waste are burnt and stripped to obtain copper, thus causing severe air pollution. From old electronics to spent batteries, they handle all items that head to the waste pile with bare hands.

Like nuclear or biomedical waste, in case of e-waste too risks are always embedded in the materials involved in the waste. Reports suggest that about "8 percent of the e-waste just lies discarded in landfills mixed with municipal solid wastes" and that "e-waste accounts for 40 percent of the lead and 70 percent of heavy metals found in landfills that lead to groundwater pollution, air pollution and soil acidification".



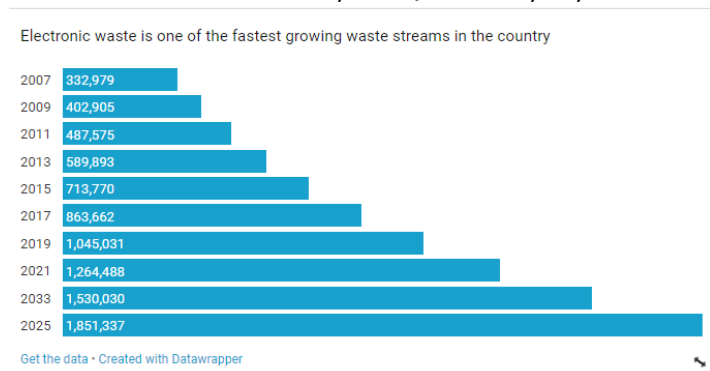
Image: *Children sort discarded computer parts as sparks fly from a grinding machine. (Image: Greenpeace, Flickr Commons; CC BY-ND 2.0)*

With increasing digital inclusion comes the problem of generation of electronic waste like discarded computer monitors, motherboards, cathode ray tubes, printed circuit board, mobile phones and chargers, compact discs, headphones, white goods such as liquid crystal displays/plasma televisions, air conditioners, refrigerators and so on. Electronic devices have become smarter and more affordable. But our need to have the newest device is damaging not just the environment but also the health of many people who handle e-waste for their livelihood. Children exposed to these are prone to suffer from life-threatening health problems, says a study published in the Indian Journal of Occupational and Environmental Medicine.

"About 76 percent of India's e-waste workers suffer from respiratory ailments like breathing difficulties, irritation, coughing and choking due to improper safeguards at dismantling workshops. All recyclers and dismantlers are suffering from breathing problems such as asthma and bronchitis and have a detrimental effect on the respiratory, urinary and digestive systems, besides crippling immunity and causing cancer. Many of these workers are children and they become incapable of working by the time they reach 35 to 40 years of age," as per a study 'Electronic waste management in India,' conducted by Assocham. High and prolonged exposure to these chemicals/ pollutants emitted during unsafe e-waste recycling leads to damage of nervous systems, blood systems, kidneys and brain development,

respiratory disorders, skin disorders, bronchitis, lung cancer, heart, liver, and spleen damage.

India is the fifth largest producer of e-waste, with the sector showing a growth of 30 percent per annum as per an ASSOCHAM-cKinetics study. It is likely to generate 5.2 million tonnes of e-waste by 2020, the study says.



Based on data sourced from Swachenv; these projections which are on the lower side as compared to the ASSOCHAM-cKinetics study were made in 2007 by the Manufacturers' Association for Information Technology (MAIT), India and GIZ, India. They were based on an inventory on e-waste (excluding imports of e-waste), arising out of three products: computers, mobile phones and televisions.

Informal economy

Though informal e-waste handling, segregation and import are prohibited by law, it thrives in the country. The sector employs around 10 lakh people in India, as per estimates. "I know that we are handling e-waste in an environmentally unfriendly manner. The poverty and corruption in my village in Farrukhabad in Uttar Pradesh pushed me to make the move to Delhi and look for wage labour work in this waste dump here. Initially, I worked on unloading cartons of electronic junk from vehicles but now I am working as a smelter in one of the small plants nearby. The wages are paltry that range from Rs 200-400 a day," says Salim, an e-waste worker in Seelampur. He shows the dismantled refrigerators, washing machines, computers, televisions and mobiles tossed in the trash here. Most houses here double up as workshops where e-waste is dismantled.

"My son, who is 22 now, used to work with me earlier. Now he, along with some of his friends, works as a technician at a centre where they recycle and resell old phones that have been trashed at an e-waste collection centre in north Delhi," says Salim. The father is proud of his son's workspace, a warehouse where he does a desk job and uses fine-tipped screwdrivers and itsy bitsy screws to dismantle the electronic products. "GIZ, a German environmental protection organisation has provided us

training on storage, segregation, and dispatch of e-waste to dismantlers and recyclers," says Ahmed, Salim's son.

Toxins flow free

Mayapuri, another flourishing e-waste recycling hub in west Delhi shot to fame in 2010 when a scrap dealer died due to radiation from seven cobalt 60 radioactive pencils that were found in the junkyard. This toxic horror forced the authorities to take the situation seriously and prompted the ministry of environment and forest, government of India to notify e-waste (management and handling) rules in 2011. Despite the law prohibiting all unauthorised collection and dismantling of e-waste in the city from May 2012, its disposal in solid-waste landfills and its handling in the informal sector continue.

The informal workers live in constant fear of the police who arrest them at will. This is a classic case of endemic public health crises and government mismanagement. "While employee safety regulations and organisation of this sector are good goals but how many people can the formal sector employ? We are not provided protective gears like helmets and gloves. Also, knowledge of e-waste recycling is absent and workers are unaware of e-waste's toxicity. We just dump or dismantle the waste," says Salim.

The formal recyclers

The state believes the solution lies in formalising the e-waste sector in India which comprises numerous importers and service providers. In November 2017, as per a CPCB report it had formally identified 243 manufacturers and dealers in the Delhi-National Capital Region (NCR) who are authorised to take back used gadgets.

GreenTekReman Pvt. Ltd in Naraina industrial area is one such waste recycler firm. "We are a pan-India company providing electronic waste management services with a recycling plant at Greater Noida. We do not have any formal support from the government by way of incentives. We source our raw materials from corporate clients like HCL, Wipro, Infosys, Tata Sky, IBM, Tata Technologies and Birlasoft," says Surabhi, the sourcing coordinator at GreenTekReman. Surabhi adds that the company has clearances and certifications from the state pollution control board as well as the ministry of environment and forest for safe disposal of e-waste. Secure data destruction is another important service that they offer. GreenTekReman does not let perfectly good parts go to waste and has vendors who, after a bit of refurbishing, send unwanted electronic products to the

right people. This way, they recycle e-waste and keep them out of the landfill.

"Apart from the corporate sector, we also deal with retail household e-waste. Whenever there is e-waste that can be recycled, we pass along the bits and pieces to vendors who restore them to working order. Unlike the informal sector, companies like ours that are into certified e-waste recycling deal with toxic chemicals in safe ways," says Farah Zahoor who deals with sales in 3R RecycleR, a Delhi-based waste recycler firm.

Only items that cannot be repaired are disposed of through the recycler. However, the temptation for formal sector recyclers to go for cheap, illegitimate ways of e-waste disposal cannot be ruled out completely. Especially, when they cannot compete with the informal sector on price and have the added burden of 12 percent tax on electronic recyclers under the new GST regime.

In the report on e-waste tabled in Rajya Sabha, the government recognized that even 10 percent of e-waste that finds its way to the organised sector, also sometimes gets diverted to the unorganised sector owing to higher margins and the fact that the organised players have yet to establish a strong last mile connect.

Delhi, a major dumping yard of e-waste from abroad

As per international norms (Basel Convention) and under laws of most developed countries, the trade of hazardous wastes, including most electronic waste, to developing countries from developed countries is illegal. "There are some e-waste recyclers both in the formal and informal sector who deal with imported products," Farah says. India, along with its neighbours, Pakistan and Bangladesh, is the world's e-waste scrap yard where shipments from all over are brought in through both certified and clandestine partners. The subcontinent is full of dealers hungry for the west's e-waste. This happens because of low processing costs, unorganized working conditions and weak environmental legislations in developing countries.

As per Basel Action Network (BAN), which rejects the transboundary movement of toxic wastes and the free trade of hazardous materials, 50 to 80 per cent of e-waste collected by the US is exported to India, China, Pakistan, Taiwan and a number of African countries. Export of e-waste is legal in US and it dumps as much as 87 percent in Asia which has lax laws and cheaper labour available for recycling.

BAN's groundbreaking reports entitled "Disconnect: Goodwill and Dell, Exporting the Public's E-Waste to Developing Countries," and "Scam Recycling: e-Dumping on Asia by US Recyclers," followed several years of research, development and implementation of GPS/cell phone-based tracking technology to establish this point. Their recent report of January 2018 reveals instances of exports to developing countries by fake recycling companies in the US some of whom had made "public claims on their websites of never allowing the electronics they process to be exported to developing countries. Further, four of the companies are certified to R2 which stands for responsible recycling".

Vinod Kumar Sharma, who has been researching e-waste at Toxic Links claims that the informal and illegal recycling network is big in Delhi. "As per the Government of India's e-waste (management and handling) rules, both dismantling and recycling are not allowed inside Delhi. The alleyways of Mayapuri, Seelampur, Mustafabad, Turkman Gate etc., however, are full of units where metals are smelted from e-waste," says Sharma.

Delhi is a major dumping yard for the e-waste produced in the developed countries and receives around 10,000 to 12,000 metric tonnes of e-waste a year. The world produced 44.7 million metric tonnes e-waste in 2016 as per a report by the International Telecommunication Union (ITU), a UN agency working in the field of information and communication technologies. While India generated about 2 million metric tonnes of e-waste in 2016.

"A whole lot of people are involved in dismantling and recycling and all this happens under the garb of refurbishing and even donation of electronic and electrical products," says Sharma. E-waste if handled properly can be used as raw materials for other products. As per estimates e-waste generated globally in 2016 contained metals and plastics worth Rs 4.21 lakh crore. While this means that through recycling there is an extraction of resources that won't have to be dug up fresh from a mine, it poses a public health problem as they use unscientific methods that cause harm to human health and the environment. Whether it is nickel, cadmium, silver or lithium (the main ingredient in cell phone batteries), all of these have been linked to the damage of the nervous system and vital organs. Mostly e-waste is smashed by hand, exposing workers to dangerous mercury laden dust, vapors and hazardous toners.

E-waste regulations

There are strict laws prohibiting the import of e-waste in India since 2011. This was when the government notified the electronic waste (management and handling) rules, 2011 that became effective in May 2012. The rules to streamline e-waste management are based on extended producer responsibility (EPR), a popular framework across the world for e-waste management. As per this, manufacturers of electronic products are responsible for the end-of-life management of their products. They have to set up collection centres and ensure that waste is recycled and disposed of in an environment-friendly manner. All collection centres, dismantling units and recyclers ought to register with state pollution control boards and comply with their norms.

In theory, the EPR framework shifts the burden of waste management onto manufacturers, and thereby creates incentives for more environment-friendly product designs. It is assumed that the cost of disposal is high, so manufacturers are forced to incorporate less toxic and easily recyclable materials in their design. A new inclusion in the 2016 notification by the government is that of dealers of electronic goods as stakeholders. They have been made responsible for collection, segregation and recycling of e-waste generated from their activities. While there are concrete laws and institutions set up to tackle the problem what happens on the ground is completely different. E-waste is normally discarded with usual waste and dismantling is done openly and the extraction is done thereafter. Whatever is useful is extracted and the discarded material, often containing toxic heavy metals, is dumped into the water drains as in Seelampur.

“The good thing is collection centres have proliferated. While there were barely eight collection centres before 2010, they have increased to over 150 now,” says Sharma. The number of registered e-waste handlers proliferates, but still over 85-95 percent of e-waste is channeled through the informal sector, as per various estimates.

The regulatory environment remains sloppy and both institutional and individual e-waste generators sell it largely to the informal sector. To correct this, in October 2016 the government tried to tighten the regulatory environment through a notification by including collection targets. The industries were liable to collect only 10 percent of e-waste during 2017-18, 20 per cent during 2018-19, 30 per cent during 2019-20 and 40 per cent and so on. The central pollution control board (CPCB) in 2017, served notices of non-compliance of e-waste

procurement norms to over 200 manufacturers of electronic goods, including some e-giants. It also had a requirement that producers implement a deposit-refund system (DRS). An upfront deposit is supposed to be charged to the consumer at the time of purchase of the product and the deposit is to be refunded when the product is safely returned to the producer.

The regulations under this were diluted a year later when the MoEF&CC came out with another notification (October 2017) that proposed to relax the EPR framework by reducing e-waste collection targets for industries. Further, as per this new amendment, the workload of the state pollution control boards (SPCB) have been significantly reduced. The random inspection of recyclers, dismantlers and refurbishers by CPCB will ensure necessary checks. The state governments have been given the responsibility of ensuring the safety, health, and skill development of workers involved in dismantling and recycling operations under this. The ministry amended the rule yet again on March 22, 2018. Positive points of this recent amendment include producer responsibility organisation (PRO) registration and revised e-waste collection targets. The political will to implement the amended rules is missing however.

Conclusion

As people go crazy behind the newest gadget in the market, there is e-waste getting piled up at the other end. Cheap e-waste recycling robots are being devised in the west to do away with human labour in the sector so that the human health is protected. In a zero job growth economy, that is not a viable option. In India, livelihoods of millions of e-waste dismantlers and recyclers depend on this informal sector. Regulations that integrate the large informal sector into the formal waste processing industry can work in India.

The state should recognize the informal e-waste dismantling centres, give them the status of micro or small enterprises to carry out metal extraction or set up co-operatives in order to formalise the informal sector. Bringing in legality would ensure safer working conditions for workers. There is a need to include e-waste within Swachh Bharat Abhiyan's ambit, check the diversion of e-waste to landfills and use environmentally sound processes that cause minimum harm to human health and environment.

Amita Bhaduri is trained as a civil engineer and forest manager, and has been working in the non-profit sector in the field of project management, documentation, monitoring & evaluation and research.

Field Report: *Water and Sanitation Reality in Delhi's Resettlement Colonies*

Authors: Bharat Dogra and Reena Mehta

There has been an upsurge of sanitation related activities in India in recent times. But to what extent is this changing the reality at the ground level? To find an answer to this question we visited and talked to people of four resettlement colonies in Delhi. Here is what the people of these colonies in outer Delhi told us:

Bawana Resettlement Colony (F, G, H Blocks)

This colony consists largely of people who were evicted a long time back from Beniwal Nagar, a distance of about 15 Kms.



Drinking water situation in these colonies is very worrying. Several persons complained that due to drinking contaminated and poor-quality

water they suffer from joint and bone pains. In this context attention may be drawn to recent news reports (Dainik Bhaskar, 16.04.2018) that discharge of untreated industrial effluents in nullahs and water bodies of Bawana is leading to contamination of groundwater. Most people here depend on groundwater. Due to the failure of the government to provide water to this colony, most of the people living here have to pay some money to others to obtain water for drinking as well as other needs.

Women here complain bitterly that due to lack of functional toilets they still have to resort to open defecation. This is very problematic for them in an urban setting. Toilets located nearby are very few or very dirty. The presence of addicts near or in toilets also hampers access to them. The only nearby clean toilet in the locality has only two seats and also charges high user fee. Hence over 90 per cent of the people living here have no

Other option but to resort to open defecation. The main place for this near a canal is also a place where many anti-social elements and addicts gather. Hence the security of women is severely compromised. The risks increase even more if woman have to go out during the night. There was a strong demand from the local population particularly women to have safe and secure functional toilets in the locality.



People also complained that natural drainage has been obstructed by encroachments, so stagnant water is also a big problem. There is no

functional system of collection of solid waste.

Bawana JJ Colony (in front of L Block)

This colony houses the people evicted from Paschim Vihar, a distance of about 25 kms, about 15 years back. Due to a failure of government planning none of these evictees could legally get the promised plot of land at the time of their resettlement and after being transported here these households were completely left to their own fate in highly uncertain conditions in new place. Since then they have worked hard to build their temporary houses and somehow arrange basic means of sustenance.

In terms of all basic facilities their condition is even worse than that of the pathetic conditions in Bhawana Resettlement Colony described above. They do not have any water supply of their own. So they have to pay for all their water supply. Despite paying they face many uncertainties and difficulties in getting their meager supply of water. They can hardly afford to choose and hence have to accept low quality water when they cannot get anything else.



There are no toilets in this colony. Some people try to assess community toilets in nearby blocks but this access is also made difficult by severe water

shortage in toilets. So most of them have no option other than open defecation.

Shahbad Dairy Resettlement Colony

The people living here were evicted from Shalimar Bagh area. Women here feel very distressed due to the fact that most of them have to resort to open defecation. They remember signing letters demanding construction of toilets on urgent basis but despite receiving some promises the situation remains much the same as before. They feel very strongly on this issue and demand adequate toilets.

In addition, they also need better bathing places. This issue has been completely neglected. Here as well as elsewhere women have to bathe in very difficult conditions. Sometimes the place is too narrow, sometimes there is an open space. This also has serious safety, dignity and hygiene implications.

Just a 12-square yard or 18 square yard room has to serve as a kitchen and a bathing space as well, apart from providing all the other functions of the house to a family including several adults and children. This is very problematic and resettlement housing norms should be reconsidered to provide better housing option to people.



The quality of drinking water flowing from the taps is often very poor and it is frequently found to be very foul smelling. One tanker provides

an alternative supply of water but this is hardly adequate and there are frequent fights to access the limited water. Many people walk a long distance in search of clean drinking water but they are frequently prevented from taking water.

C-2 Sector-27 Resettlement Colony, Rohini

The people of this colony were evicted from Kirti Nagar, Mayapuri area. People here say that only about 25 per cent of the evicted persons were allotted plots here while others were left to their own fate. Although some toilets have been constructed here, these are very inadequate and so about 50 per cent of the people have to still resort to open defecation. Women have to frequently face lewd comments when they go for open defecation. In one extreme instance, one girl who had gone for open defecation was even abducted by anti-social elements and still there is no trace of her.



People also complained that the street drains have not been cleaned for the last several years and this has created a health hazard for the

residents as many harmful insects come out of these drains and enter their houses.

As the water quality in the colony is poor many people have to resort to purchasing water in one way or the other.

The writers are freelance contributors specializing in development issues.

Water: Media Review

Traditional Sources

परंपरागत तरीकों से ही निदान

(Translated) Importance of traditional water conservation
News Courtesy: *Rajasthan Patrika*, 31 January, 2018

To overcome water woes in the country the article talks about the importance of conserving rain water through wells, ponds, canals etc. It also talks about looking for sustainable solutions in traditional water conservation techniques.

तालाबों को सहेजने की दरकार

(Translated) Protection of ponds
News Courtesy: *Dainik Jagran*, 14 March, 2018

If we manage to save all the ponds of the water crisis ridden areas in the present situation then it can help to meet water shortages to a large extent, apart from providing large-scale employment.

Odisha's dying largest freshwater lake to get a new lease of life

News Courtesy: *The Hindu*, 18 March, 2018



Odisha's largest freshwater lake, Ansupa, which silted up following drastic reduction of water inflow from the Mahanadi, may

soon get a new lease of life, thanks to holistic intervention initiated by the State government.

Chilika Development Authority, the nodal agency, has taken up restoration measures under funding from National Plan for Conservation of Aquatic Ecosystems.

[Read more](#)

Destruction of wetlands

News Courtesy: *Frontline*, 19 January, 2018

The specific rules for wetlands framed in 2010 have remained only on paper and do not seem to be able to stop proscribed activities in such areas, with even a five-star hotel being constructed on one in Udaipur.

[Read more](#)

Glaring loopholes in new draft rules for groundwater extraction

News Courtesy: *Down To Earth*, 16-31 December, 2017

India's much sought after, and fast depleting, natural resource is up for another round of contests between users. The new proposed set of regulations for use of groundwater has led to an avalanche of debates and discussions. At the core of this is the contest between who should use it how much and what penalties to be levied for its unjudicious use. Regulating groundwater has been a very contentious debate. It can be gauged from the fact that the Union Water Resources Ministry came out with new draft rules for regulation of groundwater resources in October 2017—less than two years after the previous one in 2015—and has sent it to all the states for their response. While the states are yet to respond, experts point out at many loop-holes in the rules.



The new draft rules have been introduced to check and correct the ominous situation of groundwater depletion in India. Statistics about

India's groundwater depletion are depressing. According to a 2016 report by the Parliamentary Committee on Restructuring the Central Water Commission and the Central Ground Water Authority (CGWA), "the growing dependence on groundwater has taken the form of unsustainable over-extraction, which is lowering the water table and adversely impacting drinking water

security". In order to keep this depletion under check, the government has at least 80 "notified" areas from where groundwater can't be extracted for other than drinking and domestic purposes.

One can withdraw water for industrial purposes only from "non-notified" areas which are further classified as "safe", "semi-critical", "critical" and "over-exploited" based on groundwater resources estimation. The CGWA has conducted four estimates after Independence. The last was done in 2013, the report of which was released in June 2017. In the 2013 estimate, 6,584 blocks of the country were assessed. Out of them, 1,034 were classified as over-exploited. Over 4,000 blocks are safe (see 'A steady decline'). "India's groundwater resources are under threat. Between 1950 and 2010, the number of tube wells drilled increased from 1 million to nearly 20 million," a 2016 World Bank report says.

Regional Problems

लुप्त होती हिमालय की जलधाराएँ

(Translated) Depleting water in Himalayan Rivers
News Courtesy: Dainik Jagran, 16 February, 2018

Today 60 per cent water streams coming out of the Himalayas are on the verge of drying. These include water streams of big rivers like the Ganges. The continuous flow of all the rivers from the Himalayas is dependent on the flow of these streams. Now what has been observed is that it is only in the rainy season that water comes out in these streams. This information has come out in a report on water conservation prepared by department of Science and Technology, Niti Aayog.

Health and Water

ज़हरीला होता ज़मीन का पानी

(Translated) Pollution of groundwater
News Courtesy: Jansatta, 21 March, 2018

360 districts of the country have been identified as dangerous for the fall in groundwater level. Efforts are being made to increase the groundwater level, however, due to agriculture, industrialization and urbanization there is not much concern shown towards poisonous groundwater. There is an interconnect mechanism between rain, lakes, ponds, rivers and groundwater. Forests and trees play an important role in raising groundwater level

Top bottled water brands, including Bisleri, contaminated with plastic particles

News Courtesy: Mint, 16 March, 2018

The world's leading brands of bottled water are contaminated with tiny plastic particles that are likely seeping in during the packaging process, according to a major study across nine countries published Wednesday.

"Widespread contamination" with plastic was found in the study, led by microplastic researcher Sherri Mason of the State University of New York at Fredonia, according to a summary released by Orb Media, a US-based non-profit media collective.



Researchers tested 250 bottles of water in Brazil, China, India, Indonesia, Kenya, Lebanon, Mexico, Thailand and the US.

Plastic was identified in 93% of the samples, which included major name brands such as Aqua, Aquafina, Dasani, Evian, Nestle Pure Life and San Pellegrino

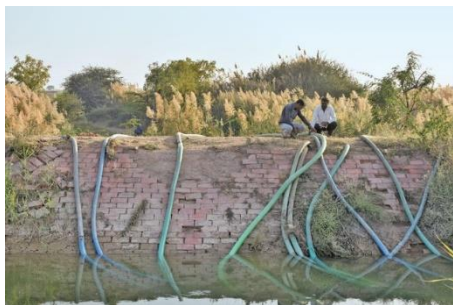
[Read more](#)

Rivers

Who robbed Narmada?

News Courtesy: Down To Earth, 1-15 March, 2018

The sun is yet to shine over Morbi district in Gujarat's arid Saurashtra region. Thousands of diesel pumps suddenly start blaring across a branch canal of the Narmada, passing through Khirai village. Hundreds of farmers have congregated along the canal to draw as much water as possible and store it in low-lying areas. "The canal level is receding fast. The government had earlier said that water from the Sardar Sarovar Project (SSP) dam will be available for irrigation till March 15, but now it has advanced the date by a month," says Rohit Sanjya, a farmer from the village. He says the revised decision has put the entire winter crop at risk. "The crops are in near-ripening stage, and need a couple of rounds of watering before they can be harvested in March-April. We are trying to secure water for these last rounds of irrigation before the government cuts off water supply," says Sanjya, who has grown wheat, cumin and garlic on his 3 hectare (ha) field.



The situation is even more chaotic in other villages. “The government has deployed the Central Reserve Police Force that visits our village every day to

ensure that no one is siphoning water. But we have already secured enough to save the wheat crop,” says Hitesh Patel of Morbi’s Khankhreach village. In Banaskantha, an arid district adjoining drought-prone Kachchh, a platoon of police raided the Palanpur village on February 5 and severed all the pipes installed to lift water from the canal. The farmers are now on the run fearing arrest. “We had never witnessed such an alarming situation over water,” says Sanjya. “While raising the height of SSP dam, the government kept assuring that it would provide water to the parched Kachchh and Saurashtra regions. But our canals are running dry in the first year of the dam functioning at its full capacity,” says Sanjya ruefully.

[Read more](#)

NGT orders survey of rivers in western U.P.

News Courtesy: The Hindu, 22 January, 2018

The National Green Tribunal (NGT) has ordered an “intensive survey” of the Kali, Krishna and the Hindon rivers in western Uttar Pradesh and directed an inspection of 316 industries that are allegedly polluting the water bodies.

The order comes after a plea filed by an NGO alleged that 50 villagers have died of cancer in western U.P

[Read more](#)

Illegal mining gets legal tag, windfall at state’s cost

News Courtesy: The Tribune, 9 March, 2018



Sources say many politicians, who have stakes in the mining business, have bought land around marked

quarries and are working hand in glove with the contractors to dig out sand in their respective areas.

A mining official says the contractors during the SAD-BJP rule had been paying a compensation of Rs 60 per tonne directly to the farmers for quarrying on their land. But now the compensation is being paid through the Mining Department.

The sources claim: “Instead of digging out sand from the allotted quarry, the contractors take out more sand from the adjoining area by paying a meagre amount to the land owner and avoid paying hefty compensation for legal mining. They also happily shell out ‘goonda tax’ at exit points at the rate of Rs 100 per tractor-trailer. Since the money earned this way is much higher (up to Rs 50,000 a day), illegal mining is flourishing across the state.”

[Read more](#)

Farmers told not to use polluted Hindon water to grow vegetables

News Courtesy: The Hindu, 19 February, 2018

Farmers in western Uttar Pradesh have been asked not to use the water of the Hindon river for growing vegetables, which are also sold in the National Capital Region markets, as it has been found to be polluted and contaminated by various official laboratories. Several NGOs along with the Meerut administration have been creating awareness among the local farmers.

According to Raman Tyagi, director of Neer Foundation, a non-governmental organisation associated with cleaning water bodies in western Uttar Pradesh, farmers living on the banks of the Hindon use polluted and contaminated water of the river to grow vegetables.



“Several independent tests have shown that extremely high content of heavy metals and compounds like mercury, lead, zinc, phosphate, sulphide,

cadmium, iron, nickel and manganese have been found in the river water. This makes the river water extremely dangerous to use for growing vegetables. But despite that a large number of farmers use the river water due to a variety of reasons to grow vegetables. That poses a major health risks to people,” said Mr. Tyagi, who is also a member of Nirmal Hindon Abhiyan, a cleaning drive of the Hindon river which flows in areas surrounding Meerut.

The cleanliness initiative of the river is led by Prabhat Kumar, the Divisional Commissioner of Meerut..

[Read more](#)

Rivers, floodplains, cities and farmers

News Courtesy: The Hindu, 31 March, 2018

Floodplains of rivers can provide a new source of water. They are a local, non-polluting, perennial and non-



invasive source of water for urban centres. Our work and research on the Palla floodplain scheme which

was launched by the Delhi Jal Board in 2016 is a tangible realisation of this idea. The scheme (on a 25 km stretch of the Yamuna) is currently running at half its potential and providing water to about one million people in the city — of a daily requirement of 150 litres per person.

[Read more](#)

Namami Gange: Cleaning an unholy mess

News Courtesy: BusinessLine, 28 March, 2018

The crisis of the Ganga has not gone unnoticed. In 2014, Prime Minister Modi campaigned from the city of Varanasi and made the effort to clean the Ganga a key focus of his electoral promises. Once in office, he immediately launched the Namami Gange Programme, an integrated conservation mission with a budget of ₹20,000 crore to accomplish the objectives of effective abatement of pollution, conservation and rejuvenation of the Ganga. The project covers eight states and seeks to fully connect all 1,632 Gram Panchayats along the Ganga to a sanitation system by 2022.



According to a new report from the CAG, this new push to clean the Ganga is not delivering results. The audit team sampled 87 projects (73

ongoing, 13 completed, and one abandoned). These projects included the 11 institutional, five afforestation, and one biodiversity. 50 projects were sanctioned after April 1, 2014.

The auditors' findings are quite startling. The Government had only used \$260 million of the \$1.05 billion earmarked for the flagship programme between April 2015 and March 2017. All of these projects had a consistent list of problems: unused funds, an absence of a long-term plan, and delays in taking concrete action.. [Read more](#)

In Gujarat's water crisis, key question: why is Narmada's level low this year?

News Courtesy: The Indian Express, 28 March, 2018



With the onset of summer, water level at the Sardar Sarovar Dam has dipped below the minimum drawdown level

of 110.64 m, and stretches of the canal network are lying parched. The state is now forced to use the 'dead storage' of the dam..

[Read more](#)

West Bengal rivers are not fit even for bathing, says report

News Courtesy: The Hindu, 18 January, 2018

A dip in the Ganges is, generally speaking, synonymous with the idea of purification. But that shall no longer be so in Bengal, where the river is so polluted that it is now officially unfit for bathing.



According to the latest State of Environment Report, published by the West Bengal Pollution Control Board (WBPCB),

in 17 major rivers of the State, including the Ganges, the levels of coliform bacteria (found mainly in human faeces) are much higher than the permissible limit of MPN (most probable number) per 100 ml. The permissible limit as per the Central Pollution Control Board (CPCB) guideline is 500.

"Regular monitoring reveals that the rivers are hardly fit for bathing as per the standard fixed by the Government of India," said the report, based on the data gathered in 2015.

The report states that several stretches of the Ganges, known as Bhagirathi and Hooghly in the region (two tributaries of the Ganges), have a total coliform count (TCC) much higher than the permissible level of 500. Near Baharampore in Murshidabad district, TCC in the Ganges was 1.10 lakh in October 2015. In Dakhineswar in North 24 Paraganas district, it was 4 lakh, and at Shivpur in Howrah district, 2.80 lakh. At Garden Reach in the southwestern part of Kolkata, the TCC in the Ganges was 2.40 lakh

[.Read more](#)

Ganga won't be cleaned even after 200 years ... unless we learn why generous flows of funds have failed so far

News Courtesy: The Times of India, 15 February, 2018

A Rs 2,000 crore hike in budgetary allocation to the water resource ministry towards revival of Ganga is a welcome move by this year's Union Budget. However, history serves up a warning. Despite the completion of two Ganga action plans and generous fund flows – Rs 900 crore spent over the last 15 years – the National Green Tribunal (NGT) in 2017 had observed that, “not a single drop of the Ganga has been cleaned so far.”

With a budget outlay of Rs 20,000 crore to be executed over five years, Prime Minister Narendra Modi's pet project – Namami Gange – launched in 2014, must therefore learn from the past mistakes..

[Read more](#)

Wastelands of the Noyyal

News Courtesy: Frontline, 16 February, 2018



For about 90 kilometres of its course of 160 km, the Noyyal river, a tributary of the Cauvery, is dead. Effluents loaded

with salt and dangerous chemicals, discharged by the textile dyeing industries in Tiruppur district of Tamil Nadu, have killed the river. From Murugampalayam in Tiruppur district to Noyyal village in Karur district, the broad, swift-flowing Noyyal has been reduced to a stricken stream of effluents. Consequently, agriculture in lakhs of acres in Tiruppur, Erode and Karur districts has been ruined. [Read more](#)

Yamuna mafias alive and killing

News Courtesy: Hindustan Times, 19 March, 2018

The National Green Tribunal, in a series of orders over the past four years, has banned several activities including sand mining, dumping of debris, encroachment and open defecation in the Yamuna floodplains.



But fresh evidence gathered over the past six months by a private security agency, hired by the Delhi Development

Authority to patrol the floodplains, has shown that little seems to have changed on the ground. Even though the land belongs to the DDA on paper, but it is the local mafias who seems to be controlling floodplains — at least after dark.

Hindustan Times in a two-part series checks how sand mining by gangs, dumping of debris to reclaim more land for encroachment, encroachment by slums and groundwater extraction from the Yamuna banks to supply hotels and hospitals are still rampant.

[Read more](#)

Delhi

How water wars have turned this colony into battleground

News Courtesy: The Times of India, 19 March, 2018

This incident is nothing short of an apocalyptic water war. But it has occurred due to the apathy of the administration that has been unable to provide potable water to the residents of northwest Delhi. An argument over a bucket of drinking water resulted in the death of 60-year-old Lal Bahadur in SS Nagar in Wazirpur Industrial Area on Saturday.

Residents of the area, however, were not surprised that such a thing had happened and seemed to have been expecting the water wars to snowball into death. For the past three months, a sole water tanker has been the lifeline for the 1,000-odd residents of the area.

“The shortage started in January when drinking water supply from the government supply lines stopped. There was no water for three consecutive days and the water tanker started coming after our protests,” said 54-year-old Sitaram. A few days before Bahadur's death, two men were hospitalised after fighting over filling water from the

tanker. Prior to that, five men suffered head injuries in a clash between two groups.

[Read more](#)

16 per cent households have no piped water supply

News Courtesy: The Indian Express, 20 March, 2018



At least 16 per cent households in the capital still do not have access to piped water supply, states the Economic Survey

of Delhi 2017-18. As opposed to 81.3% in 2015, 83.42% of households in Delhi received piped water supply in 2016, the report said. As per the survey, 12.30 per cent of households had access to water "near" and not within their premises. Another 4.28 per cent had access to water "away" from their premises, it stated. Stating that Delhi depended on neighbouring states to meet 50 per cent of the drinking water demand, the report said, "political considerations remain a very serious challenge."

[Read more](#)

The well's run dry

News Courtesy: DNA, 25 March, 2018

Delhi reels under spiralling water crisis every year, despite the government's claims of putting in place summer action plans. The worst-hit areas have been its pockets in the Southwest (rocky terrain), North floodplains (parched) and Northwest.



The city is facing a whopping demand-supply gap of 210 MGD (million gallons a day) of drinking water. The supply

is 890 MGD against a peak demand of 1,100 MGD. Delhi has also been fighting a festering battle with Haryana over Yamuna water share.

Leakages account for 40 per cent of the total water produced. And the city's water utility has not been able to fix the problem. [Read more](#)

High ammonia in water, Delhiites face acute crisis ahead of summer

News Courtesy: DNA, 19 March, 2018



With the rise in the level of ammonia in the water, people in Delhi face acute shortage of water but the arriving

summer brings a new problem with it. Every year, summers bring a lot of heat along with the shortage of water.

As the water treatment plants in Wazirabad, Chandrawal and Haidarpur couldn't run on full capacities because of the high level of ammonia in the water supplied to Delhi by neighbouring states, water supply came down considerably drying out areas of Delhi and majority of areas in South even before the summers coming.

[Read more](#)

Governance, Good Practices

Drinking water projects 'by & for the people' soon in 6 states

News Courtesy: The Times of India, 12 February, 2018

The central government will launch six pilot projects for clean drinking water supply in villages under 'Swajal Project; one each in Uttarakhand, UP, Rajasthan, Maharashtra, Bihar and Madhya Pradesh.

Piloted as a "by the people, for the people, of the people" project, the drinking water and sanitation ministry will pay 90% of the cost and the panchayat concerned will bear the remaining 10%. It will be extended to all 115 backward districts identified by Niti Aayog. The first two pilots will start in Uttarakhand (this month) and in Rajasthan next month.

[Read more](#)

Miscellaneous

High risk of poor water quality in India's river basins by 2050: UNESCO report

News Courtesy: Hindustan Times, 20 March, 2018



A new report released by UNESCO ahead of World Water Day on March 22 shows that the water crisis will be intensifying across India by

2050. Central India is staring at deepening water scarcity that means withdrawal of 40% of the renewable surface water resources.

The already stressed ground water resources will face even greater pressure in north India. SK Sarkar, who heads the water resources division at policy think-tank TERI, said that groundwater depletion was extremely severe in Punjab, Haryana and Delhi. "Ground water depletion carries with it the risk of salinity," he said

[.Read more](#)

When There Is No Water

News Courtesy: Economic & Political Weekly, 3 March, 2018

"Day Zero", a day without water is imminent. This is not some distant dystopian scenario. According to recent surveys, such a day is an eventuality in Cape Town, South Africa and a very real possibility facing at least one major city in India- Bengaluru. Cape Town has succeeded in postponing "Day Zero" from April to July this year by strict water conservation such as limiting per person water consumption to 50 litres per day. If the rains expected in May are insufficient, residents of Cape Town might have to line up at public standposts to collect water. No such constraints have been placed on the residents of Bengaluru yet or on other Indian cities facing a similar prospect.

[Read more](#)

Conserve every drop

News Courtesy: The Hindu, 22 March, 2018

The grave water situation in Cape Town in South Africa is a wake-up call to everybody across the globe — from policymakers to the common



man — that it cannot be business as usual when it comes to water usage. A similar crisis is looming large in other cities in the world as people continue to be reckless in their use of water.

The situation is so worrisome that 12 world leaders — 11 heads of state and a special adviser of a high-level panel on water — wrote an open letter to global leaders warning that the world is facing a water crisis and issued a New Agenda for Water Action. Observing that we need to make "every drop count", they called for a new approach: rethinking how we understand, value and manage water as a precious resource, and catalysing change and building partnerships to achieve the water-related goals of the 2030 for SDG.

[Read more](#)



Photo courtesy: WBCSD, Report - WASH Access to water sanitation and hygiene.

Thank You WASH Knowledge Update

For further queries or for any information, please write to
Mr. Bharat Dogra
C 27, Raksha Kunj, Pachim Vihar
New Delhi – 110 063
Phone No. +91 11 25255303

Email id: bharatdogra1956@gmail.com

DISCLAIMER:

All images are copyrighted to their respective owners. All content cited is derived from their respective sources.

Third-party newspaper article's hyperlink may expire eventually and may result in page not found, it usually happens depending upon their publisher / newspaper agency policy on keeping the news article on their server.

*Conceptualized, Composed & Designed by:
Bharat Dogra & Reena Mehta*